

## **REMARKS**

### **Status of the Claims**

Claims 1-3, 5, 15 and 18-20 are pending in the present application. Claims 4 and 6-14 were previously canceled. Claims 16, 17, 21, and 22 are presently canceled. Claims 2, 18 and 19 are amended. Support for the amendments is found throughout the specification as originally filed, including on, *e.g.*, page 10, line 29, and by the knowledge of one of skill in the art. The claims are amended or canceled without prejudice or disclaimer. No new matter is entered by way of these amendments.

### **Withdrawn Claims**

The Examiner alleges that previously submitted claims 16 and 22 are directed to an invention that is independent or distinct from the invention originally claimed. Based upon the foregoing, the Examiner has withdrawn claims 16 and 22 from consideration. Claims 16 and 22 are canceled. Accordingly, the withdrawal of claims 16 and 22 is moot.

### **Priority**

The present application is a national stage application of PCT International Application No. PCT/IS03/00023, which claims the benefit of priority of Icelandic Application No. 6496. The Examiner states that neither the PCT International Application No. PCT/IS03/00023 nor the Icelandic Application No. 6496 provide sufficient written support for previously submitted claims 17 and 22. Claims 17 and 22 are canceled. Accordingly, the Examiner's allegations regarding lack of support for claims 17 and 22 in the above-noted applications are moot.

### **Sequence Compliance**

The Examiner states that the Substitute Sequence Listing Applicant filed on February 29, 2008, appears to be incorrect. The Examiner states that the sequence set forth as SEQ ID NO. 1 only includes 36 residues. The Examiner further states that SEQ ID NO. 1 appears to be inconsistent with the claims, which specify amino acids 8-37 of SEQ ID NO. 1.

Submitted herewith is a new Substitute Sequence Listing along with a CRF copy. Support for SEQ ID NO. 1 in the Substitute Sequence Listing is found on page 10, line 29, in the specification as originally filed, and by a skilled artisan's general knowledge of the art at the time of the invention. The specification describes CGRP derivatives as including CGRP 8-37, having the sequence, THRLAGLLSRSFFMVKSNFVPTNVGSKAF, *see* page 10, line 29, in the present application. As would have been readily evident to a skilled artisan at the time of the invention, the above-described sequence only includes residues 9-37, not residues 8-37, of CGRP, a 37 amino acid peptide, *see, e.g.*, page 1, line 30, in the originally filed application. Accordingly, a skilled artisan would have recognized an obvious error in the sequence described on page 10, line 29, in the present application and in previously submitted SEQ ID NO. 1, *i.e.* that only 29 residues are described, rather than 30 residues. Based upon the foregoing, a skilled artisan would have known that the valine residue is missing from the above-described sequence at the N-terminus. (*See Exhibit A: Petermann et al., The Journal of Biological Chemistry, 1987, 262:542-545, page 544, enclosed, which describes the 37 amino acid sequence of CGRP*).

Based upon the foregoing, Applicants submit herewith a new Substitute Sequence Listing including SEQ ID NO. 1, having 30 amino acids, which correspond to residues 8-37 of CGRP. The Substitute Sequence Listing is in full compliance with 37 C.F.R. §§1.821-1.825. As indicated above, the Substitute Sequence Listing is to be inserted into the specification. The Substitute Sequence Listing in no way introduces new matter into the specification. Also submitted herewith in full compliance of 37 C.F.R. §§1.821-1.825 is a CRF copy of the Substitute Sequence Listing. The CRF copy of the Substitute Sequence Listing, file "2008-12-22-3535-0138PUS1\_ST25-v1.txt", is identical to the image form of the sequence listing, except that it lacks formatting. As described above, neither the image form of the sequence listing nor the CRF copy of the Substitute Sequence Listing introduce new matter into the present application. Accordingly, reconsideration and withdrawal of the objections to the Sequence Listing are respectfully requested.

**Issues Under 35 U.S.C. § 112, Second Paragraph**

Claims 2, 17-19, and 21 are rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite. Specifically, the Examiner states that the phrases “a polypeptide of amino acids 8-37 of SEQ ID NO. 1”, “a polypeptide of amino acids 27-37 of SEQ ID NO. 1”, “a polypeptide of amino acids 28-37 of SEQ ID NO. 1”, and “a polypeptide of amino acids 30-37 of SEQ ID NO. 1”, are unclear since SEQ ID NO. 1 does not include amino acids, which correspond to the amino acid ranges specified in the claims. Claims 17 and 21 are canceled. Accordingly, the rejection is moot in regard to these claims. Claims 2, 18, and 19 are amended to specify ‘a peptide which comprises (claims 2 and 18) or which consists essentially of (claim 19) SEQ ID NO. 1.’ Based upon the foregoing amendments, a skilled artisan would have understood the meaning of the claims. Accordingly, the claims are not indefinite and Applicant respectfully requests withdrawal of the rejection.

**Issues Under 35 U.S.C. § 112, First Paragraph, Written Description**

Claims 2, 17, and 21 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Examiner states that the ranges of amino acids specified in the claims are allegedly not supported in the present application. Claims 17 and 21 are canceled. Accordingly, the rejection is moot in regard to these claims.

As noted above, claim 2 is amended to specify “a peptide comprising SEQ ID NO:1.” Claim 2 is supported on page 10, line 29, and by the knowledge of one skilled in the art as described above. Accordingly, claim 2 complies with the written description requirement and Applicant respectfully requests the rejection be withdrawn.

**Issues Under 35 U.S.C. § 102(b)**

Claims 1-3, 5, 15, and 17-21 remain rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 6,019,967 to Brenton *et al.*, (“Brenton”) for the reasons of record, *i.e.*, Brenton allegedly teaches a method of treating psoriasis, comprising administering topically

or dermally CGRP 8-37, *e.g.*, in the abstract and at column 4, line 44, *see Office Action of August 30, 2007*, page 9 and the present *Office Action of June 23, 2008*, page 7 (hereinafter “Office Action”). Specifically, the Examiner alleges that “[g]iven that Brenton et al. teach a method of treating psoriasis comprising administering topically or dermally CGRP 8-37...the prior art anticipates the present claims.” *See Office Action*, page 7. In response to Applicant’s previous argument that the Brenton reference is a non-enabled disclosure, the Examiner contends that anticipation does not require actual performance of suggestions in a disclosure. According to the Examiner, anticipation only requires that those suggestions be enabled to one of skill in the art, *see Office Action*, page 7. Applicant respectfully traverses the rejection.

Applicant submits that by carefully reading the whole document of the Brenton patent, it becomes quite clear that Brenton is, in fact, not at all teaching the treatment of psoriasis with a CGRP antagonist. Brenton merely describes that CGRP antagonists may be useful for reducing or avoiding skin-irritant side effects of bioactive agents.

Applicant directs the Examiner’s attention to the abstract, and the “Technical Field of Invention”, which states:

The present invention relates to the formulation of an antagonist of CGRP (peptide derived from the calcitonin gene: Calcitonin Gene Related Peptide, or “CGRP”) into topically applicable cosmetic/pharmaceutical/dermatological compositions, for the treatment of sensitive skin-types, as well as to cosmetic compositions containing a CGRP antagonist for reducing or eliminating the irritant effects elicited by certain active agents, and especially by certain bioactive agents conventionally employed in the cosmetics, pharmaceutical or dermatological field, *emphasis added*.

Brenton further explains his invention at column 2, lines 32-49, and lines 46-55, which state:

The assignee hereof has also now developed a test in order to determine whether or not a skin-type is sensitive. Indeed, after having carried out a multitude of tests for the purpose of defining

sensitive skin, it has now surprisingly been found that there is a nexus between individuals with sensitive skin and those who react to a topical application of **capsaicin**....Hitherto, capsaicin was used as a medicinal active agent in particular for treating zona pains. **Capsaicin induces a release of neuropeptides from sensitive nerve fibers, and in particular of CGRP** which originates from epidermal and dermal nerve endings. It has been observed that the physiopathological pattern common to the conditions of sensitive skin-types was associated with a marked ability to release neuropeptides, and more particularly CGRP, into the skin. The dysaesthetic manifestations which are induced by their release are referred to as “neurogenic”, *emphasis added*.

The “Summary of Invention”, at column 2, lines 63-67 to column 3, lines 1-2, further explains how this activity of CGRP antagonists is the basis for Brenton’s invention:

It has now been determined that one of the essential characteristics of sensitive skin-types is associated with the release of CGRP and, thus, that the use of CGRP antagonists could permit a preventive and/or curative effect to be obtained for sensitive skin-types induced by an exogeneous factor, said factor being able to modify biophysical and biochemical skin parameters, *emphasis added*.

By reading the whole document and simply not isolated paragraphs, it becomes clear that the patentee is not at all teaching, or even suggesting, that CGRP antagonists solve the wide spectrum of skin diseases and conditions mentioned in the paragraph referred to by Examiner in the Office Action of August 30, 2007.

The Examiner has focused on column 4, lines 28-44 of Brenton, which state:

These compositions constitute, in particular, cleansing, protective, treatment or care creams for the face, for the hands, for the feet, for the major anatomical folds or for the body (for example day creams, night creams, makeup-removing creams, foundation creams and sun creams), makeup products such as fluid foundations, makeup-removing milks, body milks for care or protection, after-sun products in the form of milks, lotions, gels or mousses for skin care, such as cleansing or disinfecting lotions,

antison lotions, artificial tanning lotions, compositions for the bath, deodorizing compositions containing a bactericide, aftershave products (gels or lotions), hair-removing creams, compositions to counter insect bites, pain-relief compositions, compositions for treating acne, hyperseborrhoeic skin or seborrhoeic dermatitis, and compositions for treating certain skin diseases such as severe pruritus, rosacea, acne, leg ulcers, psoriasis, pustules and vibices.

Applicant submits that it is not feasible to assert that Brenton is teaching that CGRP antagonist may be used for artificial tanning, as a sunscreen agent, and as a disinfecting agent. Similarly, it is not feasible to assert from the above-described passage that Brenton is suggesting that CGRP antagonists are therapeutically active against the great number of various more-or-less unrelated skin diseases and conditions, such as insect bites, pain relief, acne, dermatitis, pruritus, rosacea, leg ulcers, *etc....*

Instead, Applicant submits that the patent is suggesting that CGRP antagonist may be useful for alleviating, in persons with sensitive skin, irritations caused by other agents, *e.g.*, cosmetic and pharmaceutical agents, used for the above-mentioned conditions and applications.

Brenton's contribution to the art, and Brenton's invention as described in the disclosure, is again quite clear from the granted claims. Applicant respectfully directs the Examiner's attention to claim 1 of Brenton, which states:

A topically applicable therapeutic/cosmetic composition adopted for the therapeutic treatment or care of sensitive human skin, mucous membranes, and/or the scalp, comprising an effective therapeutically/cosmetically effective amount of at least one calcitonin gene related peptide (CGRP) antagonist and a therapeutically/cosmetically acceptable vehicle, diluent or carrier therefor, and which further comprises at least one normally skin-irritating bioactive agent, and wherein the relative ratio of the amounts of said CGRP antagonist to said bioactive agent in said composition are such that the irritation normally associated with said bioactive agent upon topical application to sensitive skin is inhibited or prevented by said CGRP antagonist, *see claim 1, emphasis added.*

In contrast to Brenton, the present invention relates to a method of treating or remedying psoriasis comprising administering a therapeutically effective dose of a CGRP antagonist, based

upon the finding that CGRP antagonist is therapeutically effective against psoriasis. This is nowhere taught, suggested or alluded to in the Brenton reference or other prior art references of record. Consequently, the prior art does not anticipate the instant claims. Based upon the foregoing, Applicant respectfully requests withdrawal of the rejection.

### CONCLUSION

In view of the above Amendment, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Linda T. Parker, Reg. No. 46,046, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

MaryAnne Armstrong

Registration No.: 40,069

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant

Attachment: *Exhibit A: Petermann et al., The Journal of Biological Chemistry, 1987, 262:542-545.*